REMARKS

Claims 1 - 37 are in the application and presented for consideration. By this Amendment, Applicant has made minor changes to claim 1. The changes are believed to make the claim clearer but do not effect the scope of the claim. Claim 22 has been amended to move limitations around to emphasize the interaction between the elements of the combination. Although the claim is not believed to have been changed in scope, the rewording of the claim is believed to be useful with regard to how the combination of features interact.

The drawings have been objected to for not showing every feature specified in the claims.

Applicant notes that the hydrophilic fabric/non-woven is shown in each of Figs. 1, 2 and 3. This is shown at the surface 14. Applicant proposes the addition of a reference numeral 17 pointing to the hydrophilic fabric/non-woven.

The pretension spring is shown in Fig. 1 at 16.

The membrane of claim 34 is the membrane 50/54 shown in Figs. 6A - 6C. Accordingly, it is believed that all issues relating to the drawings have now been addressed.

Claims 1, 3, 4, 5, 22, 24, 28, 30 and 31 have been rejected as being obvious based on the teachings of Grabenkort (U.S. 5,487,380) in view of Bartel et al. (U.S. 5,722,393).

The rejection is based on the position that Grabenkort discloses the invention as claimed with the exception of the provision of means for generating a gas volume flow of at least 60 liters per minute. However, it is Applicant's position that Grabenkort fails to teach and fails to suggest particular elements of the combination claimed.

The invention provides breathing equipment with a circuit for breathing gas as well as an absorber for CO2. The equipment includes both a means for generating a gas volume flow, a flow of cooling gas over the outer surface of the absorber, as well as an evaporating agent delivery means, namely a means for delivering a liquid to the outer surface of the absorber so that this may be evaporated as the cooling gas flow flows over this outer surface. The invention provides significant advantages with regard to allowing convective heat transfer (based on the gas flow flowing over the absorber) as well as allowing heat transfer out of the absorber via evaporation of the liquid in contact with the surface of the absorber. This presents a very efficient system for maintaining the absorber at a temperature suited for efficient absorption.

Grabenkort fails to provide any teaching or suggestion of delivering an evaporating agent to a surface of the absorber and also admitting or directing a gas flow to an outer surface of the absorber, the same surface to which the evaporating agent has been deposited.

It can be appreciated that the invention requires two fluids. Further, one fluid is clearly claimed as a gas (gas flow admitted to or directed over an outer surface of the absorber) while the other fluid is initially a liquid as it moves from for example a reservoir to the surface of the absorber and then is allowed to evaporate so as to remove heat from absorber (transfer heat out of the absorber). Of course these two fluids are not to be confused with the fluid of the breathing gas circuit, namely the breathing air that is in the breathing circuit and is passed through the absorber. From the above, it can be appreciated that Grabenkort fails to teach and fails to suggest an evaporating agent delivery means as claimed. There is no liquid delivered to a surface with gas flowing so as to evaporate this liquid. There is no teaching of providing

an evaporating agent at all. From a careful review of Grabenkort it can be appreciated that the cooling fluid which is mentioned in Grabenkort is air. There is clearly no teaching nor a suggestion of providing an evaporating agent. Further, there is no teaching of providing the coolant fluid as a liquid. Of course even if such a liquid is provided in the system of Grabenkort this would not constitute the claimed evaporating agent and generated gas volume flow as claimed. Further, although coolant fluid is mentioned, it is noted that the coolant can be provided by natural convection in which case no forced air is required. This emphasizes that there is no teaching and no suggestion of delivering an evaporating agent to the surface and evaporating the evaporating agent with a gas flow for evaporation as claimed. Instead, the person of ordinary skill in the art is directed to either forced air or to an alternative such as natural air convection. These fail to provide any teaching, suggestion or motivation with regard to the claimed combination.

The secondary reference Bartel et al. deals with an exhaled gas cooling device. Specifically, this is concerned with cooling the exhaled gas from a patient. As such, this presents no teachings and no suggestions with regard to intentionally delivering an evaporating agent to an outer surface of an absorber and also providing a flow so as to evaporate the agent for heat transfer purposes. Bartel et al. is instead focused on cooling expired air. At column 7 lines 10 - 20 the discussion of the flow rate of 60 *L* per minute simply relates to the flow rate at the inlet of the cooler and does not present any teaching or suggestion of directing or emitting a gas volume flow to an outer surface of an absorber where a means are provided for delivering an evaporating agent to this outer surface such that the flow can evaporate and

thereby efficiently cool the absorber. The teachings of cooling or conditioning the breathing gas presents no meaningful teachings with regard to the cooling of the absorber. Further, even if the person of ordinary skill in the art in considering Grabenkort and Bartel et al. were to combine the teachings, at best this would lead to some high rate of flow of cooling air through the absorber of Grabenkort. This of course would not lead to any of the features of the combination claimed. Further, as Grabenkort indicates that forced air or natural convection are available, the teachings and suggestions of Bartel et al. are not very useful with regard to issues as to the cooling of the absorber. The two patents each relate to different issues and solve different problems. Further, the references present neither a teaching nor a suggestion with regard to providing the combination as claimed.

Claim 8 has been further rejected based on Grabenkort in view of Dowgul et al.. The rejection takes the position that Grabenkort teaches the claimed invention except for an evaporating agent that is water, solution containing water or mixture containing water.

As Applicant has noted above, Grabenkort does not provide any teaching nor suggestion as to an evaporating agent. Grabenkort teaches providing a cooling fluid which is forced air or natural convection air. Even if the fluid disclosed and suggested is replaced with water (there is no suggestion of this) this would merely be circulating water as a cooling fluid and would not involve any technique for removing heat taking advantage of evaporation.

Dowgul et al. really does not teach any evaporation at all. Dowgul et al. is concerned with warming a carbon dioxide scrubber wherein three heated surfaces are provided against which the particular absorbent bed lies. This provides a heating in order to optimize the

absorbent bed. The use of a liquid as the heating fluid does not provide any suggestion with regard to providing the combination of features as claimed.

Applicant respectfully requests that the Examiner reconsider the outstanding rejection and favorably consider the claims as now presented.

Respectfully submitted
for Applicant,

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JJM:jj/tf
71131.17
Enclosed: (3) Replacement Sheets of Drawings
Credit Card Payment Form (3 more claims in excess of 20)

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